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## CANADA'S OIL AND GAS INDUSTRY OVERVIEW

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Petro Canada  
Drilling Rig  
Near  
Cochrane, Alberta, Canada

With the price of oil over \$50 per barrel and gas at \$6.30 per cubic meter, Canada's abundant energy sector is booming. Ample opportunity exist for American suppliers, and the U.S. Commercial Service stands ready to advise and assist companies looking to export to Canada and beyond.

### Summary

Canada is the world's third largest producer of natural gas and the seventh largest producer of crude oil. Its oil production comes 36 percent from oil sands, seven percent East Coast offshore operations, and the balance in traditional drill and gush operations. Undeveloped energy resources include major crude oil and natural gas deposits in offshore areas in the north, gas reserves in the Yukon and Northwest Territories, and massive reserves of oil sands in Alberta. The upstream petroleum industry is active in 11 of the 13 provinces and territories. The building of the \$4 billion Mackenzie gas project promises massive gas production from Canada's north by 2010.

Confident Canadian producers are drilling at record levels, 23,920 wells in 2004 and an anticipated 25,000 in 2005. Sustained high oil and gas prices, together with the hunt for natural gas supplies are driving the growth.

## Market Overview

In 2004, producers are expected to invest over US\$20 billion on exploration, development and field equipment. In excess of 80 percent of the spending will be in the Province of Alberta on conventional and oil sands development. Significant amounts will also be spent in British Columbia (BC) due to the discovery of a world-class natural gas field in north eastern BC, and on offshore activity in Canada's maritime provinces, primarily Newfoundland and Labrador.

With increased demand and price strength, experts forecast the market for oil and gas field machinery to increase by four percent through 2005 and total market size will reach \$6 billion. Traditionally imports from the U.S. amount to approximately 90 percent of the total import market; in 2004 they are estimated to have reached \$3.3 billion.

U.S. products in the sector are recognized for their excellent quality, technological benefits and reputable after-sales-service. Promising sub sectors include drilling equipment and well monitoring technology as well as drill pipe for oil and gas drilling and boring and sinking machinery

### Oil and Gas Field Machinery Stats:

	2002	2003	2004 (estimated)
Total Market Size	4,999	5,450	6,081
Total Local Production	3,203	3,494	3,820
Total Exports	1,017	1,110	1,280
Total Imports	2,810	3,066	3,541
Imports from the U.S.	2,449	2,726	3,285

(The above statistics are unofficial estimates)

### 2004 Industry Statistics:

(source CAPP – Canadian Association of Petroleum Producers)

Capital Spending:	Conventional	\$20.5 billion
	Oil Sands	\$ 4.8 billion
Wells Drilled:	Oil	4,700
	Natural Gas	16,000
	Total	23,920 (including dry and service)
Production:	Conventional Oil	1,409,000 barrels per day
	Surface Mining	465,000 barrels per day
	In-situ bitumen	532,000 barrels per day
	Pentanes plus/ Condensate	163,000 barrels per day
	Crude Oil	2,569,000 barrels per day
	Natural Gas	17.4 billion cubic feet per day
Industry Revenues:		\$68 billion

Exports:	Crude Oil	1,611,000 barrels per day
	Natural Gas	7.4 billion cubic feet per day
Refineries:	Number:	20
	Capacity:	1,960,000 barrels per day

## The Oilsands of Alberta



View of the Alberta Oilsands  
Largest Truck in the World  
23 Feet High  
Tires are 12 feet tall!  
Up to 400-ton capacity!  
Gas Tank Holds 1800 Gallons

In 2005 production from Canada's oil sands will exceed one million barrels per day and is forecast to increase to 2.5 million by 2015. Oil sand reserves are in excess of 175 billion barrels of recoverable oil and using current technology, this resource is second only to those in Saudi Arabia.

According the CAPP, capital spending totaled more than \$28 billion from 1996 to 2004, and Canadian companies will spend close to \$7 billion on oil sands capital investments in 2005. There are 35 projects in the planning or expansion process.



Suncor's Oilsands Facility

### **Oil Sands Potential by Project**

<b>Company</b>	<b>Project Name</b>	<b>Volume (bpd) (000)</b>	<b>Year</b>	<b>Cost (\$B)</b>
Suncor	Firebag Voyageur	550	2012	5.4
Shell/Chevron/ Western	Upgrader Jackpine	525	2013	3.5
Syncrude	Aurora Mine/Upgrader	455	2009	4.3
Husky/Imperial	Kearl Lake	250	2012	3.3
Imperial	Cold Lake	225	2010	1.4
CNRL	Horizon	225	2011	5.4
True North Energy	Fort Hills	190	2008	2.4
SynEnCo	Northern Lights	150	2011	2.7
CNRL	Wolf Lake Primrose	120	2010	0.9
Encana	Foster Creek	100	2007	1.1
Conoco (Gulf)	Surmont	100	2010	0.8
ExxonMobil	Kearl Lake	100	2005	2.2
Petro-Canada	Meadow Creek	80	2007	0.5
Encana	Christine Lake	70	2008	0.4
OPTI-Nexen	Long Lake	70	2008	1.6
Petro-Canada	Lewis Creek	60	2010	0.5
JACOS	Hangingstone	50	2008	2.7
Petro-Canada	Mackay River	30	2003	0.2
Black Rock	Orion EOR	30	2007	2.7
Deer Creek	Deer Creek	30	2006	0.2
Husky	Tucker Lake	30	2005	3.4
Rio Alto	Kirby	30	2006	2.7
Devon	Dover	10	2006	0.7
<b>TOTAL</b>		<b>3,480</b>		<b>49</b>

Specific opportunities identified by industry sources include:

a shortage of diluents – any lighter hydrocarbon, such as pentanes plus, added to heavy oil or bitumen in order to facilitate pipeline transport;

environmental products, for reclamation of tailing ponds, created by oil sand extraction, and

machinery and products used in extraction plants, specifically cokers, separators, scrubbers, vessels, steam injection processors, and pressure vessels.

Downstream opportunities also exist for upgrading/refining, upgraded products and energy efficiency. Upstream opportunities exist for new in-situ fuels, field upgrading and technology advances.

Two major procurement offices are: Suncor Supply and Services - [www.suncor.com](http://www.suncor.com) and Syncrude Materials and Services – [www.synocrude.com](http://www.synocrude.com)

# OFFSHORE



Hibernia Drilling Platform  
East Coast of Canada

Canada has significant proven offshore reserves, which have received more attention in recent years due to the decline in production of conventional fields.

Since production first began in 1992 at the Cohasset field off Prince Edward Island, this industry has invested an estimated US\$14.5 billion in offshore exploration and drilling off the East Coast of Canada. Industry analysts forecast, nearly US\$1.4 billion has been committed for expenditures in 2005. As current estimates of East Coast natural gas reserves reach as high as 100 trillion cubic feet, offshore exploration is building and new players emerging. Traditionally, American suppliers of equipment have captured 75 percent of the Canadian import market in this sector. Industry analysts predict real growth of three percent in 2005.

While the offshore industry focuses on the East Coast due to supply, reservoirs and proximity to markets, the British Columbia government is considering a lift on the ban of offshore exploration and production on the West Coast of Canada. New technologies are available to develop the Pacific's Hecate Strait, just south of the Alaskan Panhandle. The Hecate has total reserves of 9.8 billion barrels of oil and 25.9 trillion cubic feet of gas. Further, technology used to construct a first undersea pipeline, carrying oil from Prudhoe Bay, may open the North American Arctic.

Atlantic Canada affords US companies opportunities to supply support products and services to the many existing and proposed projects. However, because of the region's distance from US suppliers and end-user location, many American firms have found success by appointing distributors. Others negotiate some form of business relationship or partnership with regional or national chains located in the Atlantic Provinces.

## **BEST PROSPECTS, SYSTEMS, AND PROJECTS**

Products: American companies involved in the supply of the following equipment will find good export potential in the offshore sector:

Cables, umbilicals and accessories  
Controls, consoles and panels  
Drilling services and equipment  
Environmental and oil spill equipment  
Lifting Equipment, cranes and winches

Chemicals, fluids and lubricants  
Corrosion, cathodic protection and coatings  
Instrumentation  
FSPO vessels and equipment

Systems: Companies make decisions on their drilling and working facilities depending on water depth and environmental conditions. These facilities include: the platform, which supports the upper facilities, as it floats or sits on the seabed, and contains storage silos for crude oil; and, the topsides, where all operating and support functions are housed.

Currently there are three types of oil wells drilled: (1) exploration wells – to confirm seismic surveys; (2) delineation wells – to determine deposit size and, after regulatory approval (3) development wells – for production. Each has four major parts: drill pipe to join to drill string; drill bit to cut; rotating equipment; and drilling fluids. Some current projects are:

PROJECT	OWNER	PRODUCTION	TERM	TYPE
Sable Island Scotia Shelf	Sable Offshore	Six fields 85 bcm	2025	Gas
Terra Nova Grand Banks	Petro-Canada	400bb million recoverable	2020	Oil
Hibernia Grand Banks	Hibernia	615bb million recoverable	2020	Oil
White Rose Grand Banks	Husky Oil	82 bb million	by 2005	Oil
Deep Panuke Scotia Shelf	PanCanadian	400 mcf/day	by 2005	Gas
Marathon Nova Scotia	Marathon Canada Ltd.	Exploration	Nine year license	Gas
Hebron Field	Chevron	650 bb million	Regulatory	Oil
Onondaga Thebaud	Shell Canada	Exploration	n/a	n/a

## Sector Import Market

American companies supply the lion's share of the import market in this sector from between 87% for onshore and 74% for offshore. Third country competitors include Japan, Finland, Germany and France. Domestic firms supply project components and the service needed to develop, construct and maintain existing structures and equipment.

A sound relationship between U.S. manufacturers and a local distributor is the key success factor when selling to end-users. While domestic enterprises purchase much of their heavy equipment directly from manufacturers, local distributors sell most components. The primary objective of the distributor is establishing product reliability with purchasing officials.

End-user procurement analysts and engineers determine the needs of a project and write specifications for the bid process at each tender stage. When calling for tenders, procurement executives use an approved supplier list that each company *develops*.

## Sector Market Access

Sector experts recognize U.S. products for their excellent quality, technological benefits, and good after-sales-service. U.S. manufacturers can improve market share by offering state-of-the-art products and employing reputable agents and distributors located near the market.

Because of the single-market dynamics of this sector, pricing tends to not be an issue. The U.S. supplies almost all-major equipment, while domestic companies supply components, support and service.

Canadian tax requirements, shipping and brokerage fees, and provision of credit terms, should be considered prudently. Products manufactured in the U.S. meeting NAFTA rules or origins are free of duties and tariffs. However, all goods are subject to a 7% Goods and Services Tax (GST), a value-added tax applied to all domestic and imported goods and services. With the exception of Alberta, each province has a retail sales tax (PST).

## Useful Links

### – Canadian Petroleum Industry Organizations and Regulatory entities:

Canadian Oilwell Drilling Contractors Association – [www.caodc.ca](http://www.caodc.ca)

Canadian Association of Petroleum Producers – [www.capp.ca](http://www.capp.ca)

Alberta Energy Research Institute – [www.aeri.ab.ca](http://www.aeri.ab.ca)

Alberta Energy and Utilities Board – [www.eub.gov.ab.ca](http://www.eub.gov.ab.ca)

Alberta Energy – [www.gov.ab.ca](http://www.gov.ab.ca)

Petroleum Society – [www.petsoc.org](http://www.petsoc.org)

## Upcoming Trade Events

The producer of all the major Canadian oil and gas trade shows, dmg world media, has its website at [www.petroleumshow.com](http://www.petroleumshow.com) for registration. The following is a listing of its events pertaining to the oilsands sector.

September 2005 -**Oil Sands Trade Show and Conference**– Fort McMurray

Held in conjunction with a major conference program, this annual show highlights latest technologies and innovations. The event features keynotes from industry leaders, project updates, and a free series of leading technology presentations.

June 2006 - **Global Petroleum Show 2006** - Calgary

Global Petroleum Show is a pivotal showcase for world-class technology in the fields of exploration, production and transportation of oil and natural gas. In 2006, the show is held in conjunction with the Petroleum Society's 55th annual International Petroleum Conference. Together, these two major events will attract an anticipated 50,000 visitors from around the globe.

June 2007 - **Go-Expo: Gas and Oil Exposition** - Calgary

Held in conjunction with the Petroleum Society's 55th Annual Canadian International Petroleum Conference. GO-EXPO showcases latest innovations. The 2007 event also features keynotes from industry leaders, project updates, and a series of free presentations. This show will run concurrently with the Canadian International Petroleum Conference - The premier organization for professionals, the Petroleum Society presents well over 100 technical presentations and its annual Awards Banquet. Contact 403-237-5112 to register.

#### **U.S. Commercial Service Goldkey Service**

If you are planning to attend any of the shows listed above, consider using our Goldkey Service. This very productive and cost effective resource will make your trip to Canada the most successful it can be. Commercial Service staff in Calgary will work with you to tailor an appointment schedule to help you meet your goals in the Canadian oil and gas sector. Contact Sharon Atkins at [sharon.atkins@mail.doc.gov](mailto:sharon.atkins@mail.doc.gov).